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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,264	03/31/2004	Narayanan Sundararajan	21058/0206768-US0	7476

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EXAMINER
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BAUSCH, SARAE L

ART UNIT	PAPER NUMBER
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1634

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/815,264

Applicant(s)

SUNDARARAJAN ET AL.

Examiner

Sarae Bausch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-14, 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Currently, claims 10-14 and 16-20 are pending in the instant application. Claims 1-9, 15, and 21-45 have been canceled. Claim 10 has been amended. This action is written in response to applicant's correspondence submitted 07/19/2007. All the amendments and arguments have been thoroughly reviewed but were found insufficient to place the instantly examined claims in condition for allowance. The following rejections are either newly presented, as necessitated by amendment, or are reiterated from the previous office action. Any rejections not reiterated in this action have been withdrawn as necessitated by applicant's amendments to the claims. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. **This action is Final.**

***Withdrawn Rejections***

2. The rejections of claims 10-14, under 35 U.S.C. 102(e) as being anticipated by Chan et al. (US Patent 6696022), made in section 3, page 3-4 of the previous office action mailed 04/19/2007, is withdrawn in view of the amendment to the claims.

***New Grounds of Rejection Necessitated by Amendment******Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 10-14 and 16-20 rejected under 35 U.S.C. 102(e) as being anticipated by Chan et al. (US 2003/0187237 A1). This rejection was previously presented in section 7 and has been rewritten to address the amendment to the claims.

The applied reference has a common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regard to claim 10-11, Chan et al. teach an apparatus comprising a first channel comprising a restriction barrier (comb surface and nanoparticles) with a first angled wall and a second angled wall to form a first opening and a second opening that is about 1  $\mu\text{m}$  (micro channels at least 1 micron and less than 10 micron) (see paragraph 10, 15, and figure 1). Chan et al. teach a laser light source and lenses for a gradient force optical trap (see para 71-72).

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With regard to claim 12, Chan et al. teach an apparatus with a light source and detector for surface enhanced Raman spectroscopy emission (see figure 1 and paragraph 69).

With regard to claim 13, Chan et al. teach a system the comprises a light source, detector, and a first channel in optical communication with the light source and detector (see figure 1, paragraph 10, 15, 69, 71) . Chan et al. teach a first channel that comprises a restriction barrier that comprises a plurality of walls to restrain movement (nanoparticles, see paragraph 15). The specification teaches at least two inventions in the form of a “system” and “method” wherein the system is defined in terms of **structural** limitations (see paragraphs 15 and 20,) Claims 13-20 recite **structural** limitations of the “system”. The “system” is therefore interpreted as an **apparatus** rather than a method.

With regard to claim 14, Chan et al. teach the restriction barrier, nanoparticles, comprise a first angled wall and second angled wall wherein the first opening in at least 1 micron and a second opening of less than 10 microchannel (see figure 1 and paragraph 16, 23, 34).

With regard to claim 16, Chan et al. teach a second channel forming a junction with a first channel (see figure 1).

With regard to claim 17, Chan et al. teach nanoparticles (restriction barriers) located upstream of the junction (see figure 1).

With regard to claim 18-19, Chan et al. teach the light source and optical trap is positioned downstream of the first and second channel junction (see figure 1).

With regard to claim 20, Chan et al. teach a portion of the flow path is coated with gold (nanoparticles coated with gold) (see figure 1 and paragraph 27)

***Response to Arguments***

The response traverses the rejection on page 5 of the response mailed 07/19/2007.

The response asserts that Examiner's position that Chan et al teach a laser light source and a series of lenses to form a gradient force optical trap is incorrect. The response asserts that the bead is held mechanically by the packed column and not a laser light source and a series of lenses to form a gradient force optical trap. The response asserts that the laser light source is simply for detection purposes and cannot be used to form a gradient force optical trap and assert that the embodiments of the present invention of claim 10 are used to hold the bead. This response has been thoroughly reviewed but not found persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., laser light source and series of lenses to hold the bead) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In the instant case, the claims are not limited to a series of lens and a laser light source that hold the bead, as asserted by applicant on page 5, 3<sup>rd</sup> paragraph of the response mailed 07/19/2007. The claims are limited to an apparatus that comprises a channel, a laser light source, and a series of lens to form a gradient force optical trap. The claims do not recite a bead held by a laser light source. Additionally Chan et al. '237 does teach a series of lens and a laser light to form an optical trap, see paragraph 49, paragraph 53, and paragraph 71-72.

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In response to applicant's arguments that the laser light source of '237 is used simply for detection means and cannot be used to form a gradient force optical trap, as stated in MPEP 2145 [R-2], Attorney argument is not evidence unless it is an admission, in which case, an examiner may use the admission in making a rejection. See MPEP § 2129 and § 2144.03 for a discussion of admissions as prior art. The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness."). See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration. In the instant case, the attorney's argument that is the laser light source of '237 is used simply for detection means and cannot be used to form a gradient force optical trap is not factual evidence and requires an appropriate affidavit or declaration to be of probative value which includes unexpected results and inoperability of the prior art. This should not be construed as an invitation for providing evidence. As further stated in the MPEP 716.01 regarding the timely submission of evidence:

A) Timeliness.

Evidence traversing rejections must be timely or seasonably filed to be entered and entitled to consideration. In re Rothermel, 276 F.2d 393, 125 USPQ 328 (CCPA 1960). Affidavits and declarations submitted under 37 CFR 1.132 and other evidence traversing rejections are considered timely if submitted:

- (1) prior to a final rejection,
- (2) before appeal in an application not having a final rejection, or
- (3) after final rejection and submitted
  - (i) with a first reply after final rejection for the purpose of overcoming a new ground of rejection or requirement made in the final rejection, or
  - (ii) with a satisfactory showing under 37 CFR 1.116(b) or 37

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CFR 1.195, or  
(iii) under 37 CFR 1.129(a).

For these reasons, and the reasons made of record in the previous office actions, the rejection is maintained.

### *Conclusion*

5. No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarae Bausch whose telephone number is (571) 272-2912. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.



Sarah Bausch, PhD.  
Examiner  
Art Unit 1634



JEANINE A. GOLDBERG  
PRIMARY EXAMINER

9/4/07